

## REMARKS

Claims 1 and 3-23 are pending in the application. Applicants respectfully request for allowance of all the pending claims based on following discussions.

### Rejections under 35 U.S.C. §103

#### Claims 1 and 14-15

Claims 1 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,942,019 to Goodell et al. (hereinafter referred to as “Goodell”) in view of U.S. Patent No. 4,137,012 to Porta et al. (hereinafter referred to as “Porta”) and U.S. Patent Application Publication to Deninger et al. (hereinafter referred to as “Deninger”).

Independent claim 1 discloses a purifier comprising “*means for vaporizing the source of the getter material to refresh the coating of getter material on the at least one baffle.*” Examiner acknowledges that neither Goodell nor Porta teaches an evaporative getter, but asserts that it would have been obvious at the time when the claimed invention was made to substitute the non-evaporative getters taught by Porta with the evaporative getter taught by Deninger. However, Applicants respectfully disagree with the assertion.

It is improper to combine references where the references teach away from their combination. *In re Grasselli* 713 F.2d 731, 743 (Fed. Cir. 1983). It is improper to combine Porta and Deninger because they teach away from each other.

Porta, as shown in FIG. 6, teaches an array of pleated resistance substrates 44 coated with a non-evaporative getter material. *See, abstract.* The resistance substrates 44 heat the non-evaporative getter material up to 750 degrees Celsius, in order for the getter

materials to react and sorb undesired gases in a closed vessel. *See, col. 4, lines 54-57.* It is essential for Porta's design that the getter material is non-evaporative, such that the material would not evaporate to contaminate the vessel at a high temperature. For example, Porta specifically chooses finely ground "St 101" non-evaporable getter material for its design. *See, col. 4, lines 39-45.* When considering the appropriateness of combining Porta with other prior art references, it is not simply a matter that Porta fails to teach evaporative getters. More importantly, it teaches away from them.

Examiner cites Deninger for its teaching of evaporative getters. However, as discussed above such feature is not compatible with Porta. Thus, as a matter of law, it is improper to combine Porta and Deninger in rejecting the claimed invention under 35 U.S.C. 103(a).

In addition, Examiner asserts that it would have been obvious for a person skilled in the art at the time when the invention was made to substitute an electric arc generating device, such as electrode and rod, with the heaters in Porta. *See, page 4, second paragraph.* Applicants respectfully disagree with the assertion.

Porta's objective is to provide a getter pump which requires no separate heater, thus reducing power requirement and cost of the pump. *See, col. 1, lines 64-67.* It is not clear what the power requirement implications would be, if an electric arc generating device were implemented in Porta's getter pump as suggested by Examiner. It is quietly likely that the power requirement/consumption would go up, and therefore defeats the objective of Porta. Without further evidence of prior art explaining the power

requirement implications, Applicants respectfully disagree with Examiner's legal conclusion of obviousness in this regard.

As such, Applicants respectfully submit that the rejection against claim 1 is improper. Accordingly, rejections against claims 14 and 15 are also improper because they depend from claim 1 and include all the limitations recited therein.

### **Claims 3-13**

Claims 3-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Goodell, Porta, Deninger and further in view of U.S. Patent No. 3,399,052 to Bobo (hereinafter referred to as "Bobo"), U.S. Patent No. 3,167,678 to Griessel (hereinafter referred to as "Griessel"), and U.S. Patent No. 3,593,495 to Ellison (hereinafter referred to as "Ellison").

Since claims 3-13 depend from independent claim 1 and include all the limitations set forth therein, they are patentable over the cited references under section 103.

### **Claims 16-23**

Claims 16-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Goodell, Porta, Deninger, Ellison, and Griessel as well as U.S. Patent No. 5,911,560 to Krueger et al.

Independent claim 16 includes "means for applying an electric potential across the source of the getter material and the housing, thereby *vaporizing the source of the*

*getter material* to refresh the coating of getter material on the at least one baffle.” As

discussed above a combination of the references is improper. Thus, claim 16 is

patentable under section 103.

Accordingly, claims 17-23 that depend from claim 16 and include all the limitations set forth therein are patentable over the cited reference as well.

## CONCLUSION

Applicants have made an earnest attempt to place this application in an allowable form. In view of the foregoing remarks, it is respectfully submitted that the pending claims are drawn to a novel subject matter, patentably distinguishable over the prior art of record. Examiner is therefore, respectfully requested to reconsider and withdraw the outstanding rejections.

Should Examiner deem that any further clarification is desirable, Examiner is invited to telephone the undersigned at the below listed telephone number.

Applicants do not believe that any additional fee is due, but as a precaution, the Commissioner is hereby authorized to charge any additional fee to deposit account number 50-4244.

Respectfully submitted,

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